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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,212	03/27/2006	Masayuki Takeda	200303.00012	5185

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EXAMINER
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THOMAS, ERIC W

ART UNIT	PAPER NUMBER
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2831

NOTIFICATION DATE	DELIVERY MODE
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05/04/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@hahnlaw.com  
akron-docket@hotmail.com

## Office Action Summary

Application No.

10/534,212

Applicant(s)

TAKEDA ET AL.

Examiner

Eric Thomas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 8/31/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5 is/are rejected.
- 7) ☒ Claim(s) 4 and 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) \*
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08) .  
Paper No(s)/Mail Date 8/06, 5/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### *Specification*

2. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Takeda et al. (US 7,072,173)

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Takeda et al. disclose in fig. 1, an electrolytic capacitor having a capacitor element fabricated by winding an anode foil (1), a cathode foil (2) and a separator (3) and impregnating the capacitor element with an electrolyte solution, an outer case (6) for housing the capacitor element, and a sealing member (5) for sealing an open part of the outer case, wherein that an electrolyte solution containing aluminum tetrafluoride salt (col. 3 lines 30-35) is used as said electrolyte solution, and wherein a separator made of a heat resistant synthetic resin is used as the separator (polypropylene – col. 10 lines 13-16 – applicant's abstract).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being obvious over Takeda et al. (US 7,072,173) in view of JP 2000173864 ('864).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing

that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Regarding claim 2, Takeda et al. disclose in fig. 1, an electrolytic capacitor having a capacitor element fabricated by winding an anode foil (1), a cathode foil (2) and a separator (3) and impregnating the capacitor element with an electrolyte solution, an outer case (6) for housing the capacitor element, and a sealing member (5) for sealing an open part of the outer case, wherein that an electrolyte solution containing aluminum tetrafluoride salt (col. 3 lines 30-35) is used as said electrolyte solution.

Takeda et al. disclose the claimed invention except for the separator is a mixed paper containing glass fiber layer.

'864 teaches that a capacitor comprising a separator formed of a mixed paper containing glass fiber improves the capacitor properties.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the capacitor of Takeda et al. using the separator of '864, since such a modification would improve the electrical properties of the capacitor.

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being obvious over Takeda et al. (US 7,072,173) in view of Arora et al. (RE 31,743)

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an

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invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Regarding claim 5, Takeda et al. disclose the claimed invention except for the anode or cathode foil being subjected to a phosphate treatment.

Arora et al. teach that treating an aluminum foil with a phosphate solution produces a uniform etched structure.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to etch the aluminum foil of Takeda et al. (specifically the anode foil as disclosed in col. 9 line 55-60) by the phosphate etching treatment as disclosed in Arora et al., since such a modification produces a uniform etched structure having significant pit density.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al. (US 7,072,173) and JP 2000173864 ('864) as applied to claim 2 above, and further in view of Arora et al. (RE 31,743).

Regarding claim 3, Takeda et al. disclose the claimed invention except for the anode foil or cathode foil being subjected to a phosphate treatment.

Arora et al. teach that treating an aluminum foil with a phosphate solution produces a uniform etched structure.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to etch the aluminum foil of Takeda et al. (specifically the anode foil as disclosed in col. 9 line 55-60) by the phosphate etching treatment as disclosed in Arora et al., since such a modification produces a uniform etched structure having significant pit density.

### ***Double Patenting***

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).



11. Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 11, of U.S. Patent No. US 7,072,173 in view of JP 1-268110 ('110).

'173 discloses the claimed invention except for the separator is formed from a heat resistant synthetic resin.

'110 teaches the use of an improved separator used in the electrolytic capacitor art.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the separator of '173 from the rayon material as taught by '110, since such a modification would improve the electrical properties of the capacitor.

12. Claim 2 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 11, of U.S. Patent No. US 7,072,173 in view of JP 2000173864 ('864).

Regarding claim 2, '173 disclose the claimed invention except for the separator is a mixed paper containing glass fiber.

'864 teaches that a capacitor comprising a separator formed of a mixed paper containing glass fiber improves the capacitor properties.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the capacitor of Takeda et al. using the separator of '864, since such a modification would improve the electrical properties of the capacitor.

13. Claim 3 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 11, of U.S. Patent No. US 7,072,173 in view of JP 2000173864 ('864) and Arora et al. (RE 31,743).

'173 discloses the claimed invention except for the anode foil or cathode foil being subjected to a phosphate treatment.

Arora et al. teach that treating an aluminum foil with a phosphate solution produces a uniform etched structure.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to etch the aluminum foil of Takeda et al. by the phosphate etching treatment as disclose in Arora et al., since such a modification produces a uniform etched structure having significant pit density.

14. Claim 5 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 11, of U.S. Patent No. US 7,072,173 in view of JP 2000173864 ('864) and Arora et al. (RE 31,743).

'173 discloses the claimed invention except for the anode foil or cathode foil being subjected to a phosphate treatment.

Arora et al. teach that treating an aluminum foil with a phosphate solution produces a uniform etched structure while maintaining foil strength.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to etch the aluminum foil of Takeda et al. by the phosphate etching

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treatment as disclose in Arora et al., since such a modification produces a uniform etched structure having significant pit density.

***Allowable Subject Matter***

15. Claims 4, 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach or suggest, in combination with the other claim limitations, an electrolytic capacitor comprising a partial cross-linking peroxide butyl rubber that peroxide is added as a cross-linking agent to a butyl rubber polymer (claims 4,6).

***Conclusion***

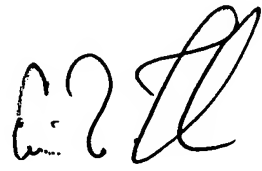
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Thomas whose telephone number is 571-272-1985. The examiner can normally be reached on Monday - Friday 6:30 AM - 3:45 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ewt

 4-30-07  
ERIC W. THOMAS  
PRIMARY EXAMINER